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Discussion

Dr David R. Jones *(Charlottesville, Va)*. Dr Bonde, that was a very nice presentation.

I have just 2 questions for you. Is the *OGG1* downregulated in either acidic or basic conditions that are frequently associated with the development of Barrett's epithelial changes or adenocarcinoma of the esophagus?

Dr Bonde. This particular model uses both gastric and duodenal reflux—that is, both acidic and alkaline reflux—to create this model. Therefore it was downregulated in terms of squamous cell cancers in both of them. However, we did not study the specific effect of the refluxate on the *OGG1* expression in this current study.

Dr Jones. There are some data that reversing the continued insult of acid and bile into the esophagus will actually cause the Barrett's changes to regress. Do you have any data on the regression of the changes in the 8-oxoG levels if you were to reverse this surgically created reflux model?

Dr Bonde. That is a very interesting question, and that is the one question that we would like to answer. It is known that the 8-oxoG concentration is higher in patients with esophageal cancer and in many cancers, particularly in the urine. We have mice models now that are specifically *OGG1* knockout models, and to try this model in those mice will be the next plausible step to see whether there is a decrease in the incidence of Barrett's in those mice. However, there are other ways of delivering this gene through gene therapy locally into the esophagus and seeing whether treatment with *OGG1* really regresses the Barrett's metaplasia in this model.

Dr Jones. Thank you. That was a very nice presentation.

Dr Bonde. Thank you.